TECHFEST 2020-21

RECOGNISIGN

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The model consists of the following layers:

STEP 1: THE FIRST CONVOLUTIONAL LAYER #1

Input = 32x32x1

Output = 28x28x6

Output = (Input-filter+1)/Stride* => (32-5+1)/1=28

Used a 5x5 Filter with input depth of 3 and output depth of 6

Apply a RELU Activation function to the output

pooling for input, Input = 28x28x6 and Output = 14x14x6

* Stride is the amount by which the kernel is shifted when the kernel is passed over the image.

STEP 2: THE SECOND CONVOLUTIONAL LAYER #2

Input = 14x14x6

Output = 10x10x16

Layer 2: Convolutional layer with Output = 10x10x16

Output = (Input-filter+1)/strides => 10 = 14-5+1/1

Apply a RELU Activation function to the output

Pooling with Input = 10x10x16 and Output = 5x5x16

STEP 3: FLATTENING THE NETWORK

Flatten the network with Input = 5x5x16 and Output = 400

STEP 4: FULLY CONNECTED LAYER

Layer 3: Fully Connected layer with Input = 400 and Output = 120

Apply a RELU Activation function to the output

STEP 5: ANOTHER FULLY CONNECTED LAYER

Layer 4: Fully Connected Layer with Input = 120 and Output = 84

Apply a RELU Activation function to the output

STEP 6: FULLY CONNECTED LAYER

Layer 5: Fully Connected layer with Input = 84 and Output = 43

Direction:

Module Requirements :-

- Numpy
- Pandas
- Matplotlib
- Seaborn
- Pickle
- Os
- Cv2
- Sklearn
- Keras
- Tensorflow 2.0

Run the file present at the location('Submission Folder/Codes/ Main.py')